



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM61/1002

WESTERLUND & POWELL  
122 N ALFRED STREET  
ALEXANDRIA VA 22314-3011

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/228,760	01/12/99	022	HAVAN, T	2779 10/02/00
First Named Applicant	OXAAL, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION: METHOD FOR INTERACTIVELY VIEWING FULL-SURROUND IMAGE DATA AND APPARATUS THEREFOR

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 RP990001US	345-430.000	T15	UTILITY	YES	\$620.00	01/02/01

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

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If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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If the SMALL ENTITY is shown as NO:

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- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

**II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.**

**III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.**

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/228,750	01/12/99	OXAAL F	RP99000105

WESTERLUND & POWELL  
122 N ALFRED STREET  
ALEXANDRIA VA 22314-3011

LM61/1002

EXAMINER  
HAVAN, T

ART UNIT	PAPER NUMBER
2779	6

DATE MAILED: 10/02/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Notice of Allowability**

Application No.

09/228,760

Examiner

Thu-Thao Havan

Applicant(s)

OXAAL, FORD

Art Unit

2779

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

1. ☒ This communication is responsive to preliminary amendment on 5/19/99.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ The drawings filed on \_\_\_\_\_ are acceptable.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of the CERTIFIED copies of the priority documents have been
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number). \_\_\_\_\_.
3. ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

A SHORTENED STATUTORY PERIOD FOR REPLY to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office Action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be available under the provisions of 37 CFR 1.136(a).

6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☒ Applicant MUST submit NEW FORMAL DRAWINGS
- (a) ☐ because the originally filed drawings were declared by applicant to be informal.
- (b) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review( PTO-948) attached
- 1) ☒ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
- (c) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the examiner.
- (d) ☐ including changes required by the attached Examiner's Amendment / Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

**Attachment(s)**

- 1 ☒ Notice of References Cited (PTO-892)
- 3 ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 5 ☐ Information Disclosure Statements (PTO-1449), Paper No. \_\_\_\_\_.
- 7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)
- 4 ☐ Interview Summary (PTO-413), Paper No. \_\_\_\_\_.
- 6 ☐ Examiner's Amendment/Comment
- 8 ☒ Examiner's Statement of Reasons for Allowance
- 9 ☐ Other

## **DETAILED ACTION**

### ***Drawings***

The application having been allowed, formal drawings are required in response to this Office Action.

### **Allowable Subject Matter**

1. The following is an examiner's statement of reasons for allowance: The present invention relates in general to a method and apparatus for viewing full-surround, spherical image data for selecting a view point within a p-surface. The closest prior arts, Acker (US 6,016,439) and Chen et al. (US 5,396,583) teach a similar system, which also deals with the viewpoint of the scenes and mapping those scenes by using a scanline method. However, Acker and Chen fail to teach the step of texture mapping full-surround image data onto the p-surface such that the resultant texture map is substantially equivalent to projecting full-surround image data onto the p-surface from the view point to thereby generate a texture mapped p-surface. Particularly, in the specification of page 9, lines 4-13, the p-surface is a computer graphics representation of any surface with a well-defined inside and outside, where there exists at least one point X inside (neither intersecting, nor lying outside) the surface which may be connected to every point of the surface with a distinct line segment, no portion of which the line segment lies outside the surface or intersects the surface at a point not an endpoint. The unions of all such points X form the

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region X of the p-surface. For a convex p-surface, the region X is all points of the interior of the p-surface.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cohen et al., U.S. Patent No. 6,028,955

Kanade et al., U.S. Patent No. 6,084,979

Golin et al., U.S. Patent No. 6,031,540

Taylor et al., U.S. Patent No. 5,973,700

Erdahl et al., U.S. Patent No. 5,699,497

Gueziec et al., U.S. Patent No. 5,951,475

Suya You, the non-patent literature, "Interactive Volume Rendering for Virtual Colonoscopy"

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***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Powell can be reached on (703) 305-9703. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-5359 for regular communications and (703)308-5359 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9500.

September 29, 2000

TTH



MARK R. POWELL  
SUPERVISORY PATENT EXAMINER  
GROUP 2700